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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,548	01/21/2004	Toshiyuki Asou	042037	8628

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WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
1250 CONNECTICUT AVENUE, NW  
SUITE 700  
WASHINGTON, DC 20036

EXAMINER

PHAM, LEDA T

ART UNIT PAPER NUMBER

2834

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/760,548

**Applicant(s)**

ASOU ET AL.

**Examiner**

Leda T. Pham

**Art Unit**

2834



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/24/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract is over 150 words.

Applicant should delete the second paragraph starting by "as shown in Fig. 2" from line 10 to the end of page 24 in the abstract. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

3. Claims 2 - 3 are objected to because of the following informalities: "the oval section" should be change to --the oval cross section--, "the rectangular section" should be change to --the rectangular cross section-- Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 - 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2834

In claim 1, “the axial direction” on lines 4 –5 of the claim lacks of antecedent basis. The axial direction of the cylindrical body can be a vertical axis, a horizontal axis, or the axis in moving direction. Therefore, which axial direction is recited in claim 1? In light of specification, “the axial direction of the cylindrical body” is understood as the linear moving axial direction or the longitudinal axial of the cylindrical body.

In claims 2 –3, “the major axis” lacks of antecedent basis. What is major axis? Which axis (a longitudinal axis, a horizontal axial, a vertical axis) is recited in the above claims? In light of specification, the above subject matter is understood as the longitudinal axis of the over cross section.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Makoto et al. (JP 08-275495) in view of Applicant admitted prior art (AAPA).

Referring to claim 1, Makoto teaches a linear motor (figure 1) comprising:

a rod-like member (6) having a plurality of plate-like segment magnets (61), they are stacked in the axial direction of the cylindrical body (60); and

a coil member (7) having a polyphase coil (71), wherein said rod-like member (6) is arranged to extend through a center bore of said coil member (7), and said rod-like member and

Art Unit: 2834

said coil member are moved relative to each other by applying a current to the polyphase coil (71) of said coil member (7),

said linear motor being characterized in that said rod-like member (6) comprises the cylindrical body having a substantially rectangular section and the plurality of segment magnets (61) having a substantially rectangular plate shape which stacked in the axial direction of the cylindrical body, and that the section of the center bore of said coil member is substantially rectangular corresponding to the shape of the section of said rod-like member.

However, Makoto does not teach the cylindrical body made of a non-magnetic material and plate-like segment magnets accommodated in the cylindrical body.

AAPA teaches the cylindrical body (111) made of non-magnetic material (stainless steel) and plate-like segment magnets accommodated in the cylindrical body (figure 1) for holding the stack of magnets in the linear motor.

Thus, it would have been obvious to one having skill in the art at the time the invention was made to modify Makoto's linear motor with the cylindrical body made of non-magnetic material and the magnets accommodated in the cylindrical body as taught by AAPA. Doing so would hold magnets in together forming stack in a linear motor.

***Allowable Subject Matter***

8. Claims 2 -3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2834

9. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is an examiner's statement of reasons for allowance: the record of prior art does not show the cylindrical body having a substantially oval section, the plurality of segment magnets having a substantially oval plate shape, and the section of the center bore of the coil member is substantially oval corresponding to the shape of the section of the said rod-like member wherein the major axes of the oval sections of the rod-like member and the coil member both extend vertically.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

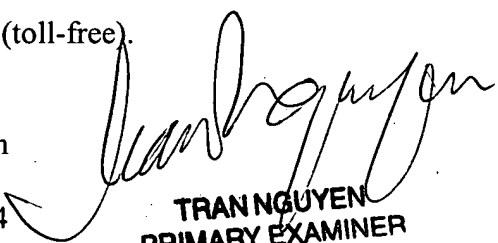
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (571) 272-2032. The examiner can normally be reached on M-F (8:30-6:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2834

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leda T. Pham  
Examiner  
Art Unit 2834



**TRAN NGUYEN**  
**PRIMARY EXAMINER**

LTP  
March 9, 2005